



# Ubiquitous Networks and Services as an Innovation Platform: *the EU R&D perspective*

**Global Forum**

*Shaping a Connected Digital Future*

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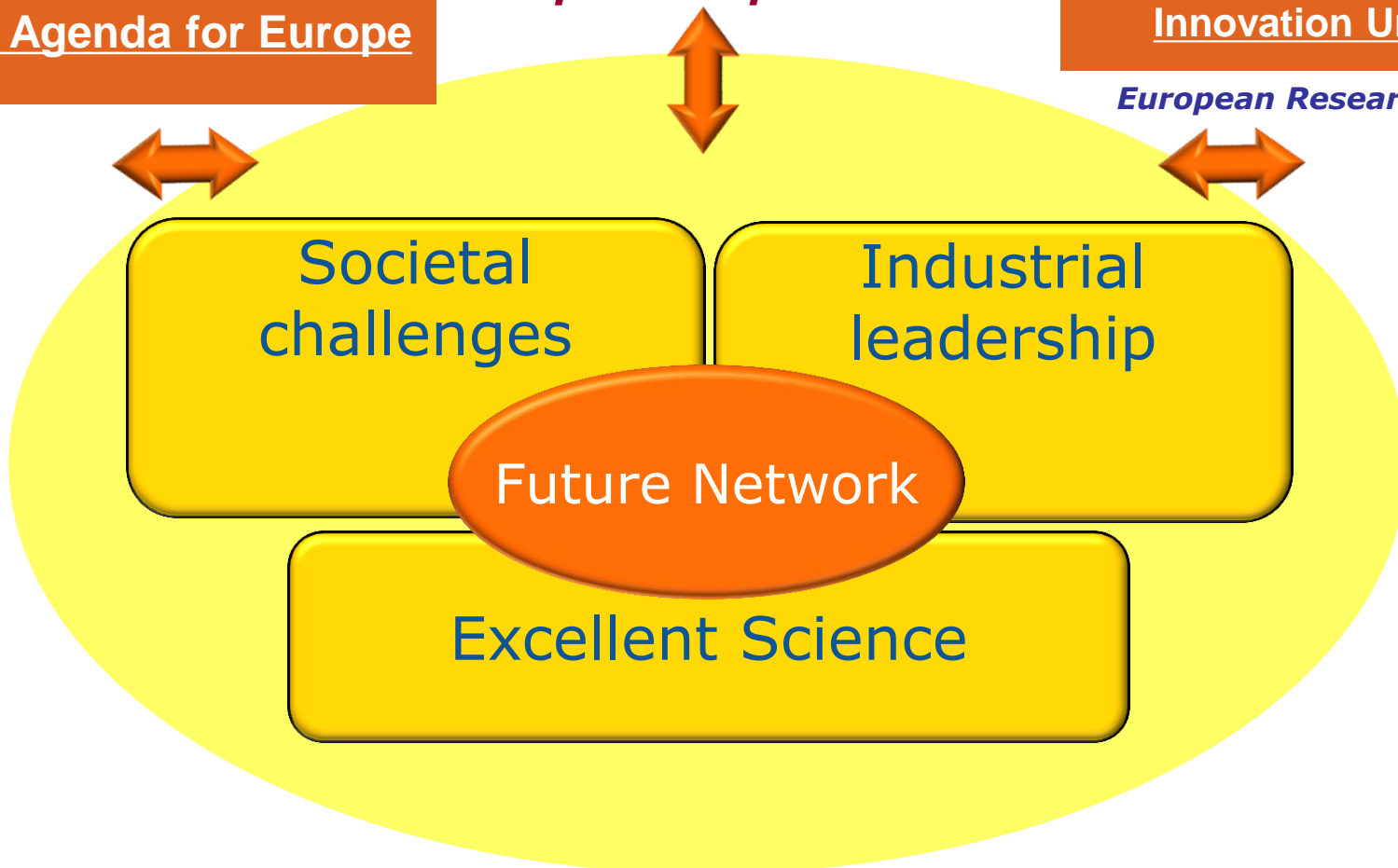
# HORIZON 2020: new challenges

Digital Agenda for Europe

*Europe 2020 priorities*

Innovation Union

*European Research Area*



# An integrated approach in DG-CONNECT

**Network Technologies**  
Towards Networks 2020

**Software and Services,  
Clouds**

**Infrastructure for  
Research, experimental  
platforms**

**Net Innovation**  
User in the loop

Socio Economic Drivers and context,  
what should technology answer?

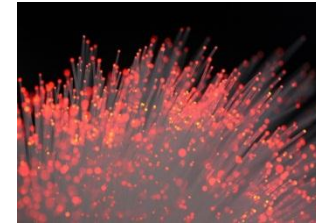
Technology Push

Market/Usage  
Pull

Synergy and  
integration for  
impact  
maximisation,

# Trends driving EU R&I on Future Networks I

- **Data explosion, content**
  - High capacity networks
  - Architectures, e.g. Content Centric Networks
- **Service platforms**
  - Software Defined Networks, open programmable and virtualised networks
  - End-to-End, cloud interoperability/integration
  - User involvement: personalised, social
- **Ubiquitous access/Mobility**
  - High capacity wireless, spectrum efficient and flexible technologies
  - Low radiation
  - From Convergence to fully integrated *global* networks



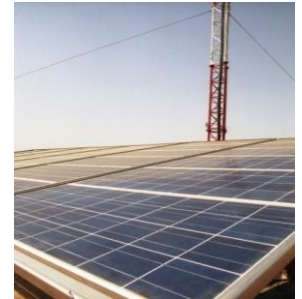
2G population coverage



3G population coverage

# Trends driving EU R&I on Future Networks-II

- **Sustainability**
  - Green networks, drastic energy reduction/user
  - all optical beyond IP routing
- **Flexibility, low CAPEX, low OPEX**
  - Flexible self-management across multiple domains.
  - Big data usage, Quality of Experience
  - Leveraging network data in higher level applications
- **Objects connectivity**
  - IoT, spectrum efficient technologies
  - Integration environment
- **Security, Privacy...**



# Shaping a Connected Digital Future

- The overriding objective should be the "democratisation" of the network
- A seamless information access, knowledge sharing and communication space
- Conducive to individual and social empowerment... and to smart growth
- Addressing societal challenges should lead to innovation and growth opportunities for the ICT sector and beyond
- The upcoming integrated ubiquitous infrastructure will be a game changer
- Global standards and open innovation are key for users and industry alike

***HORIZON 2020 is a unique opportunity to meet these ambitions***